

*Cell sorting to screen for recombinant enzymes  
excise  $\lambda$  library into *E.coli**

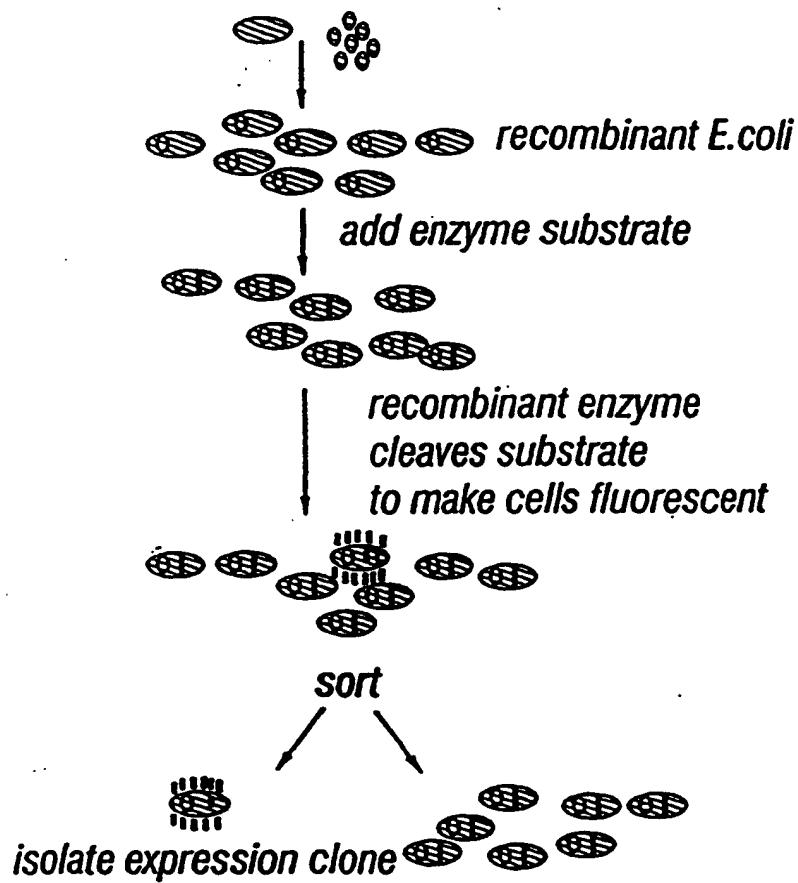
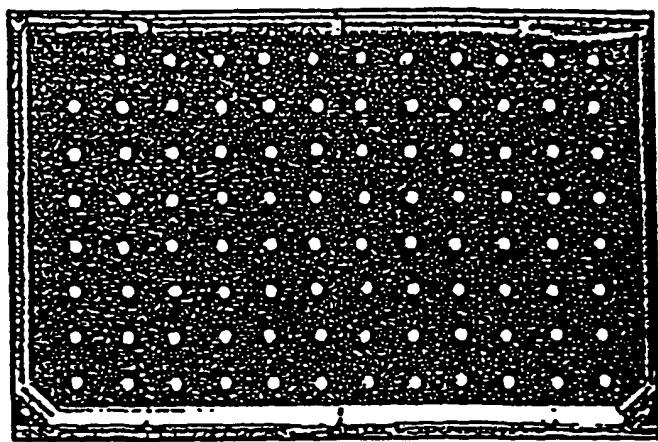
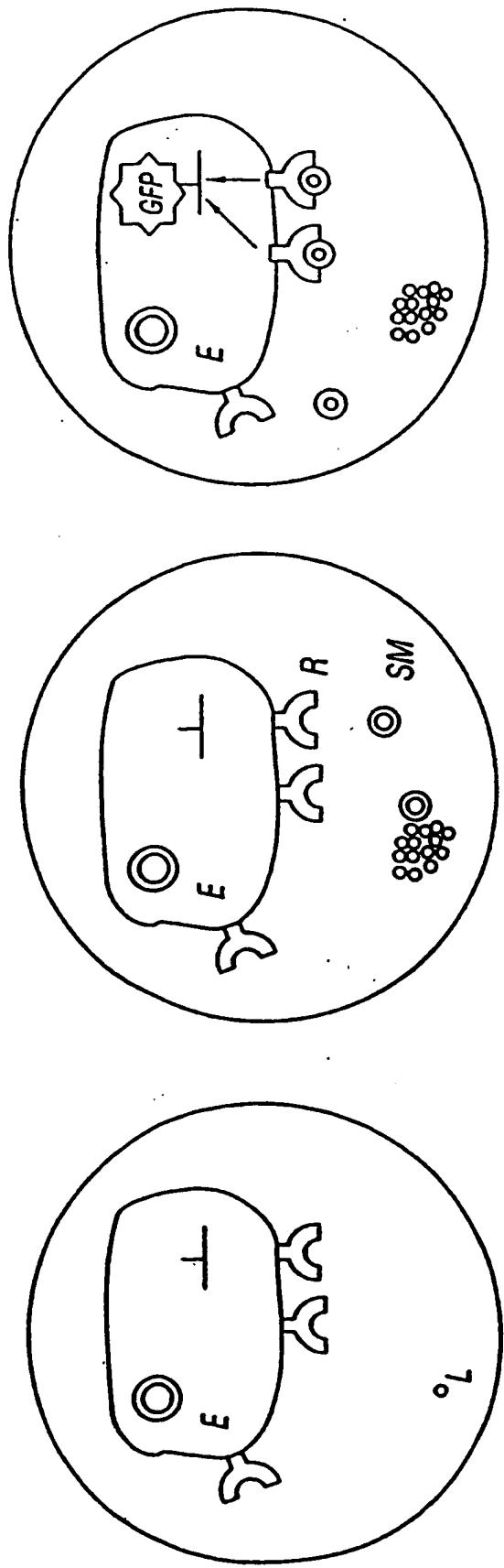


FIGURE 1



**FIGURE 2**



*Co-encapsulation  
Library + Eukaryote*

*Receptor binding of small  
molecule & GFP reporting*

<i>E = Eukaryotic assay organism</i>	<i>L = Large insert library</i>
<i>GFP = Green fluorescent protein</i>	<i>R = Eukaryotic receptor</i>
<i>SM = Small molecule</i>	

FIGURE 3

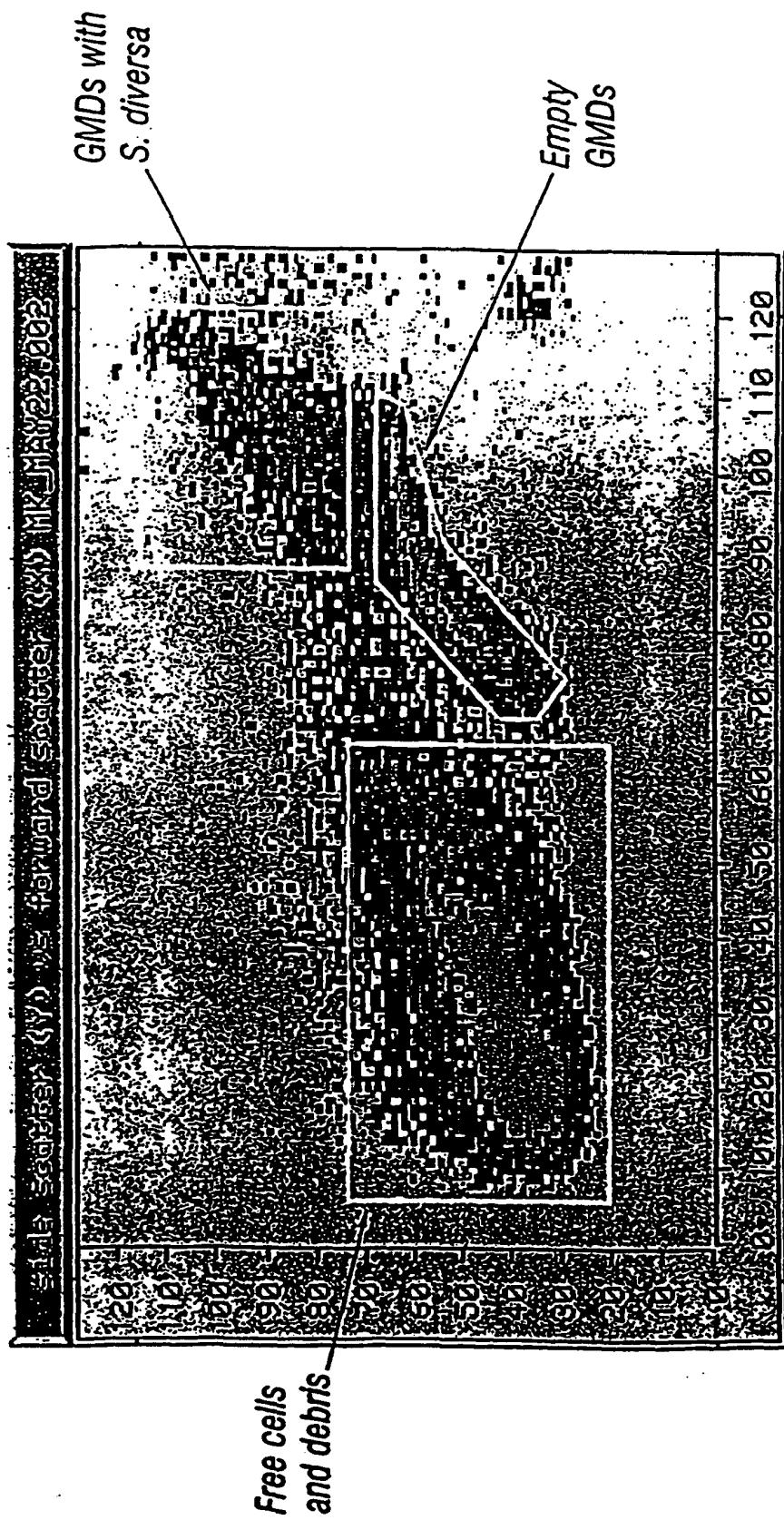


FIGURE 4

Whole Cell Hybridization Protocol  
(+ control)

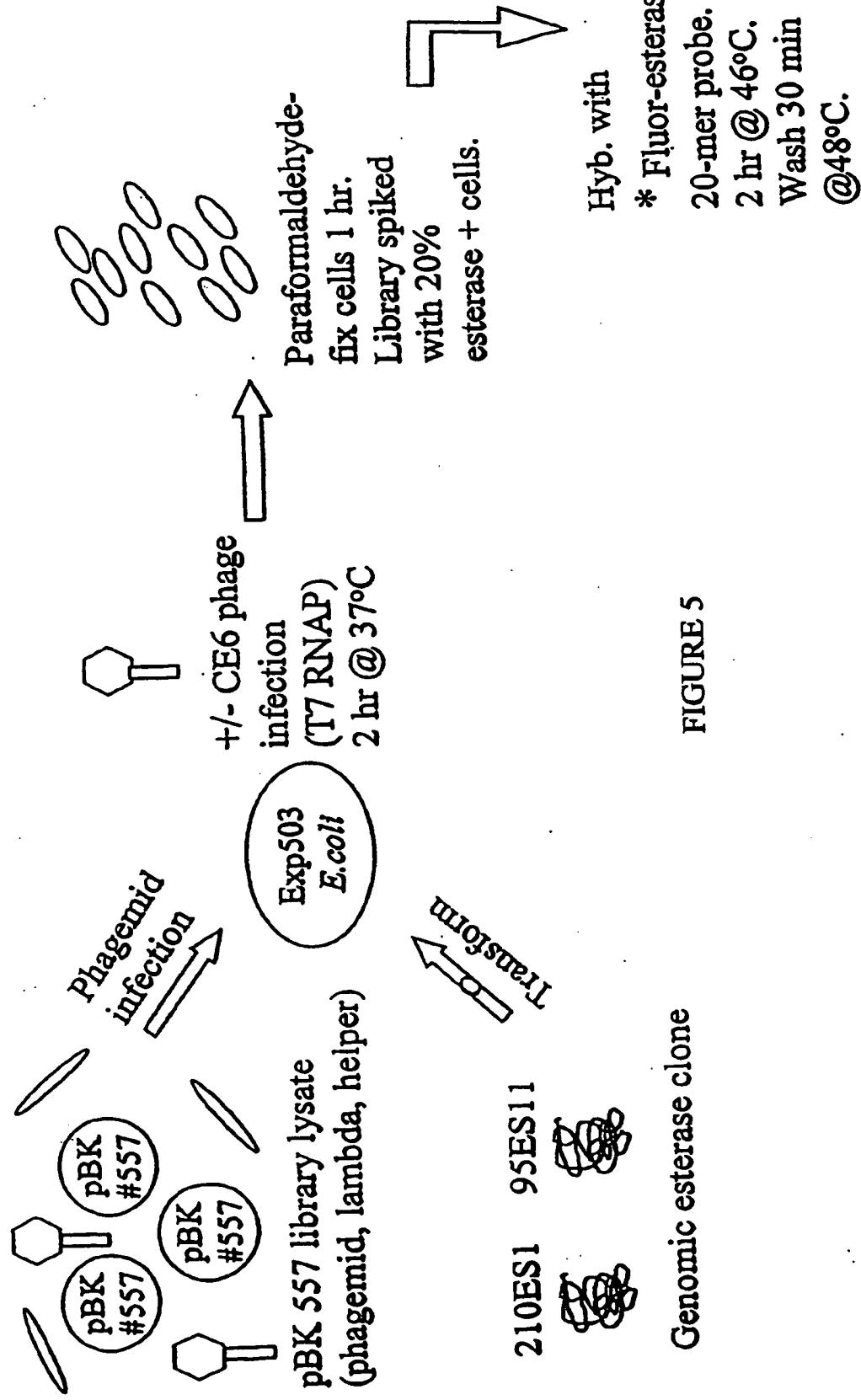


FIGURE 5

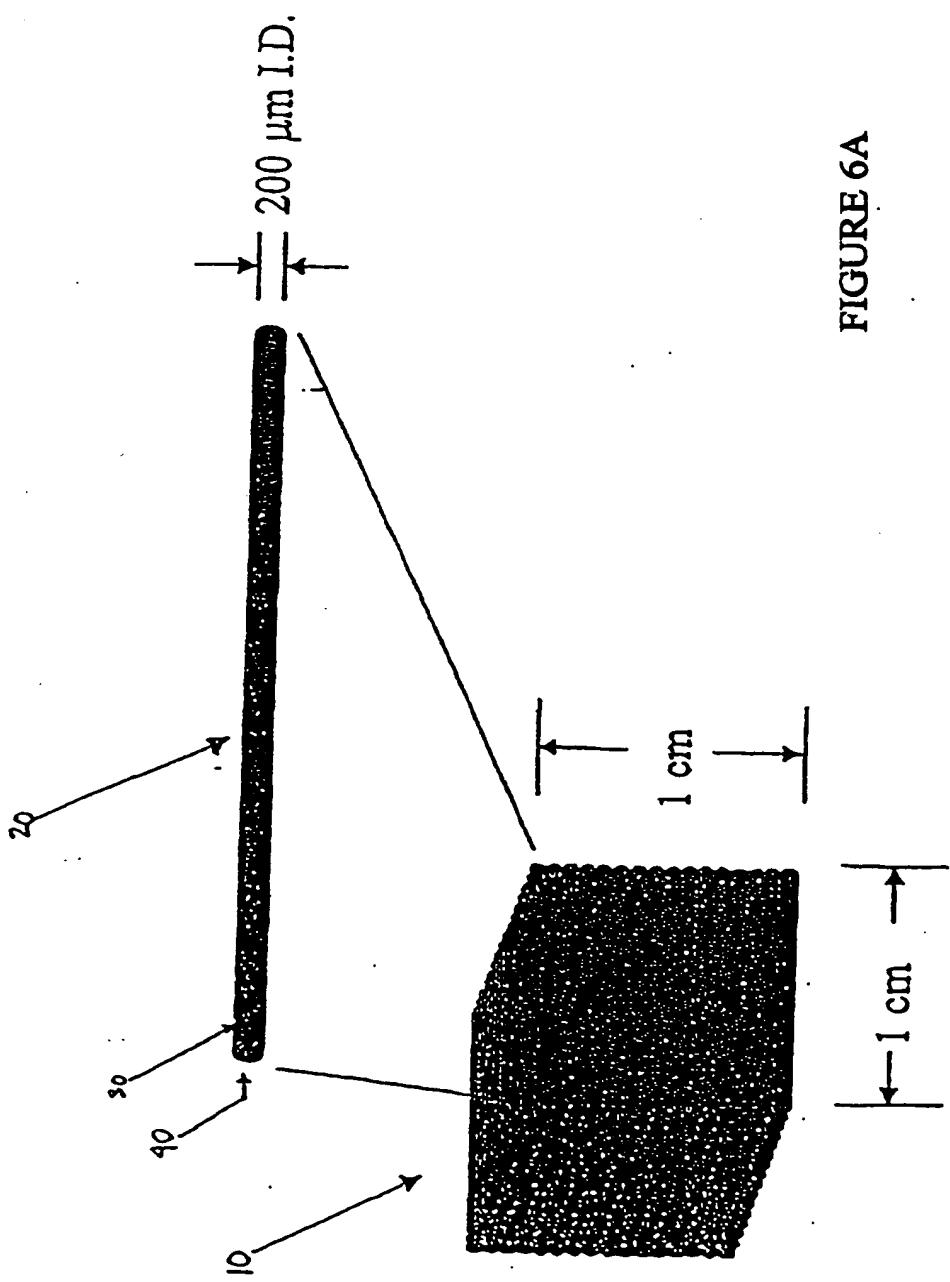
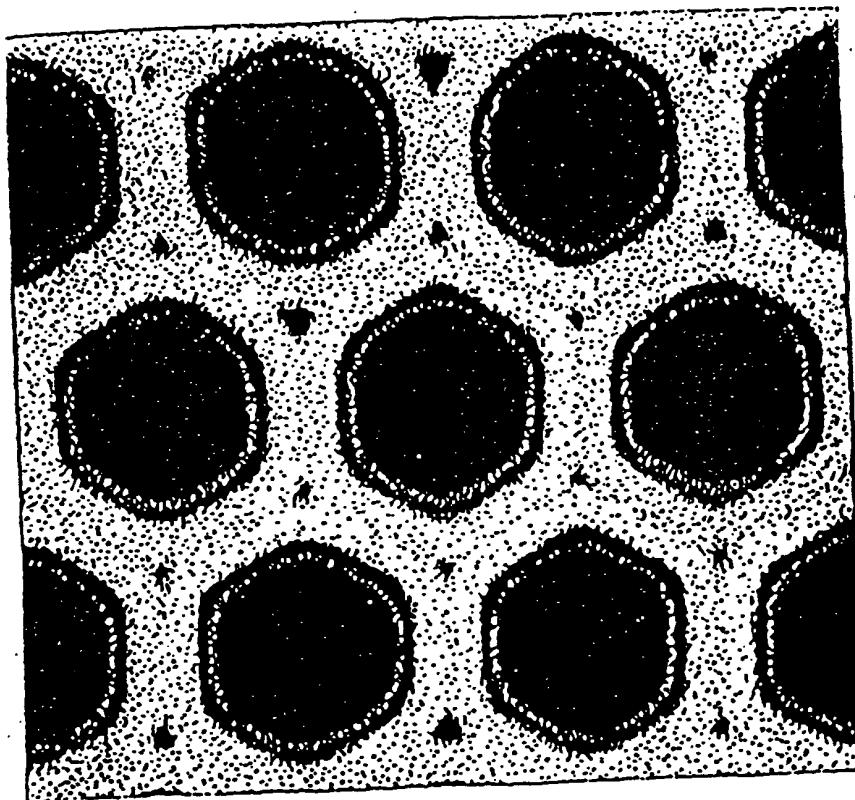


FIGURE 6A

FIGURE 6B



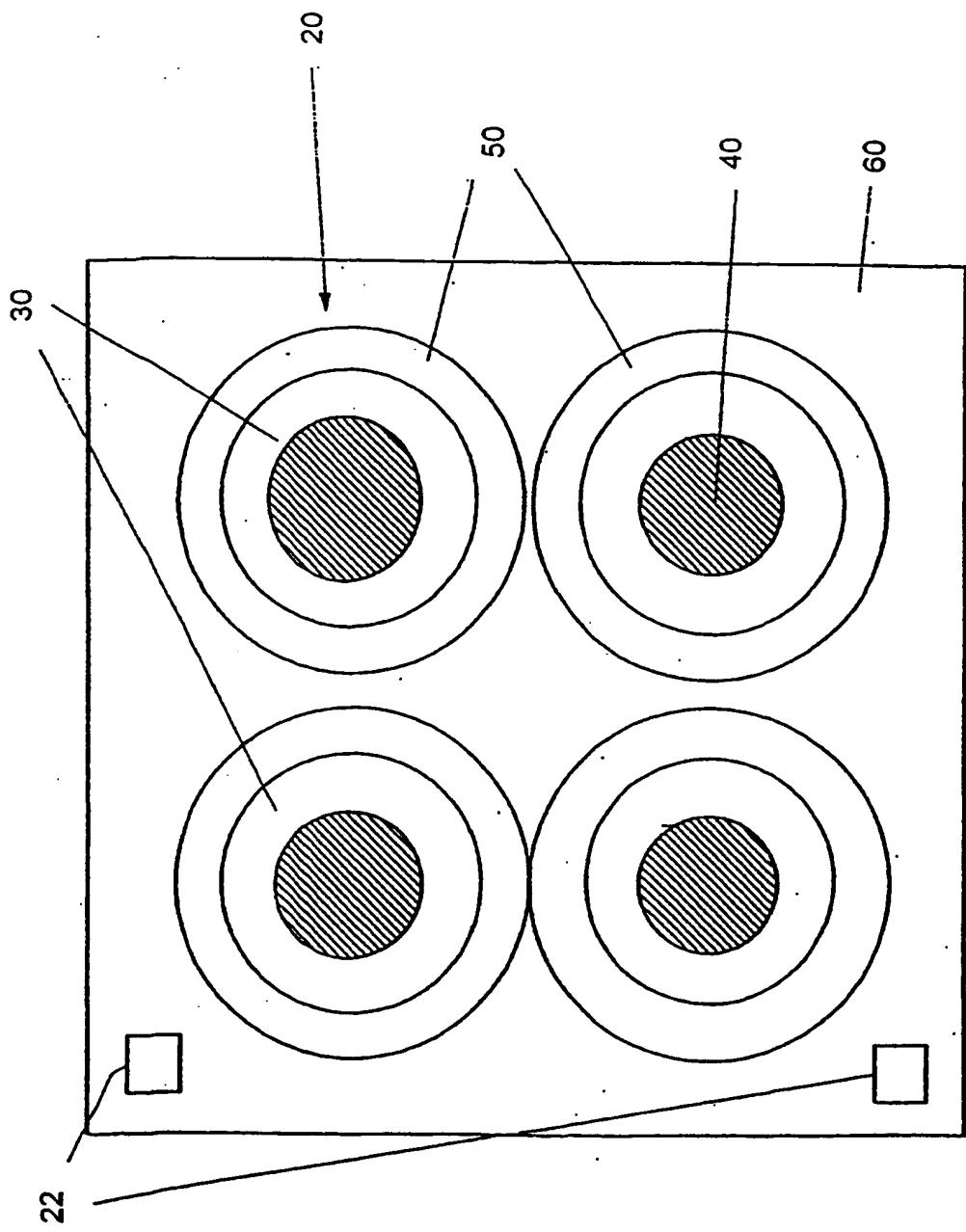
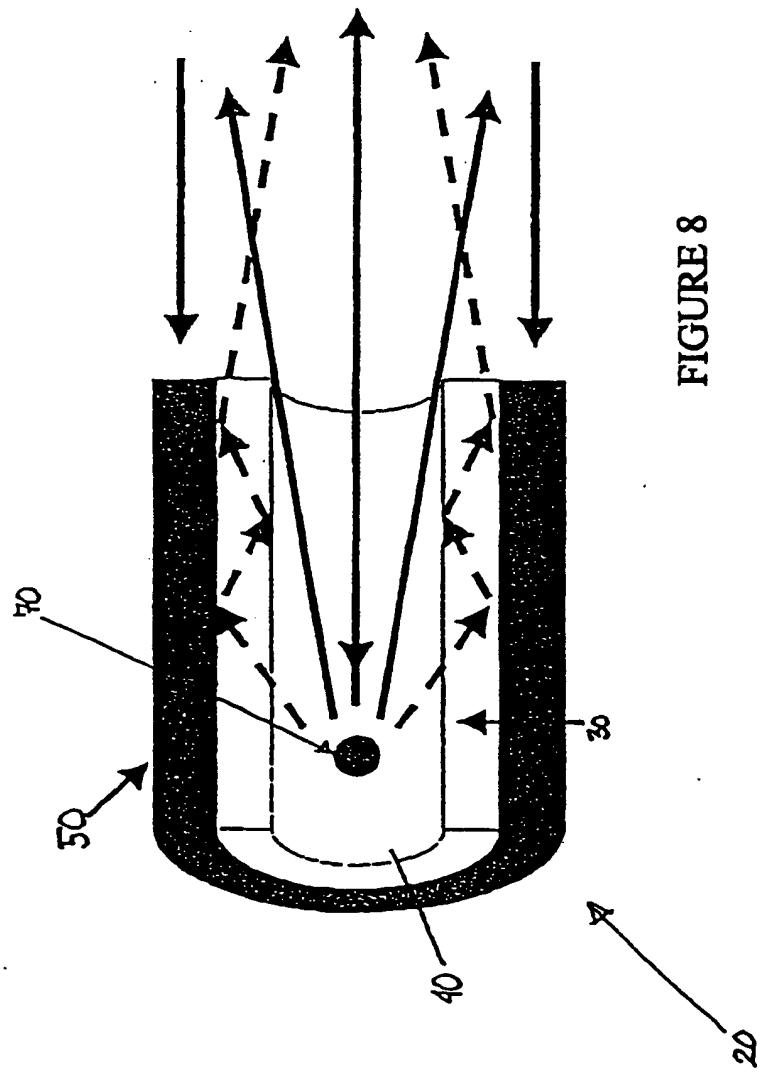
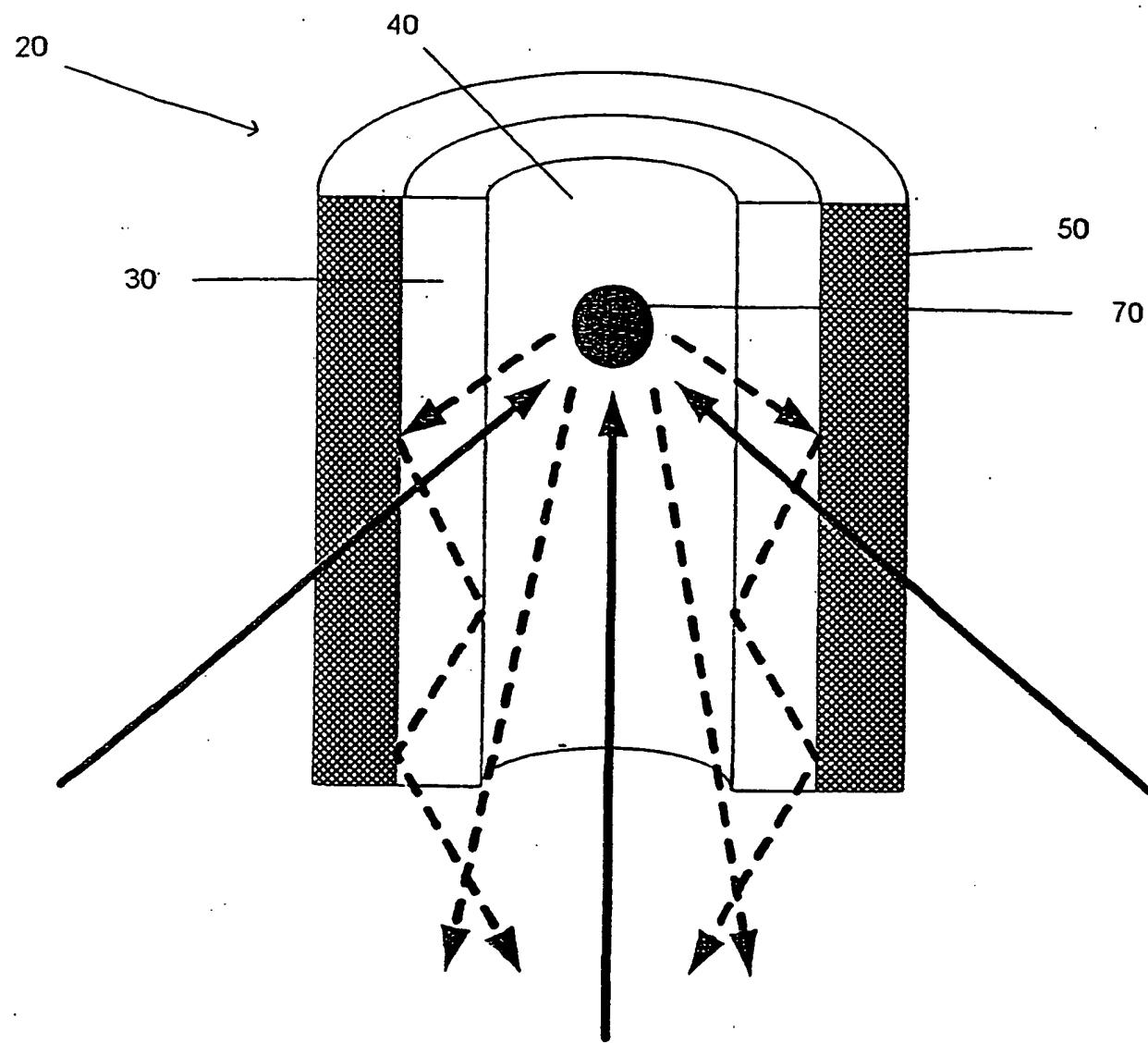


FIGURE 7

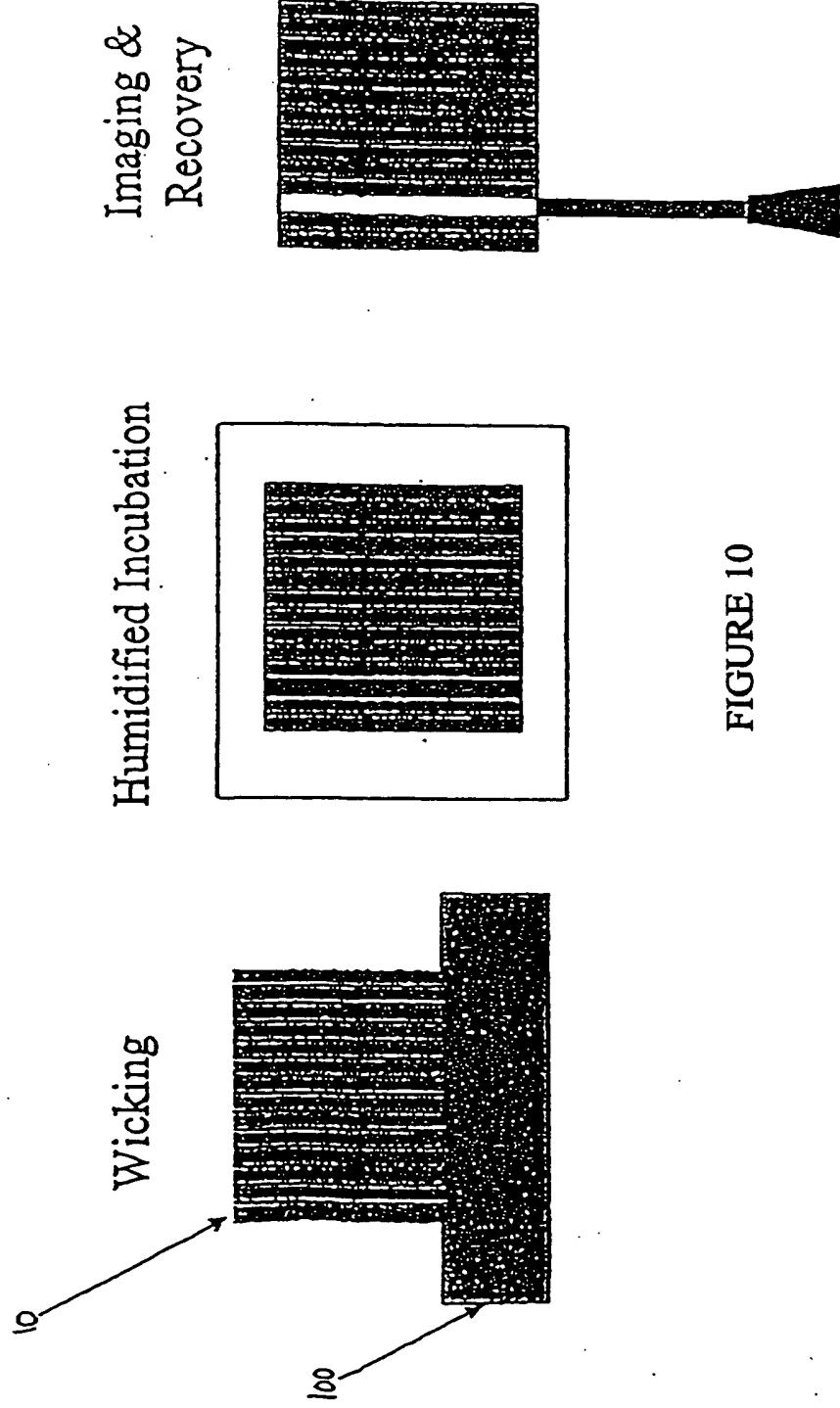
FIGURE 8





**FIGURE 9**

FIGURE 10



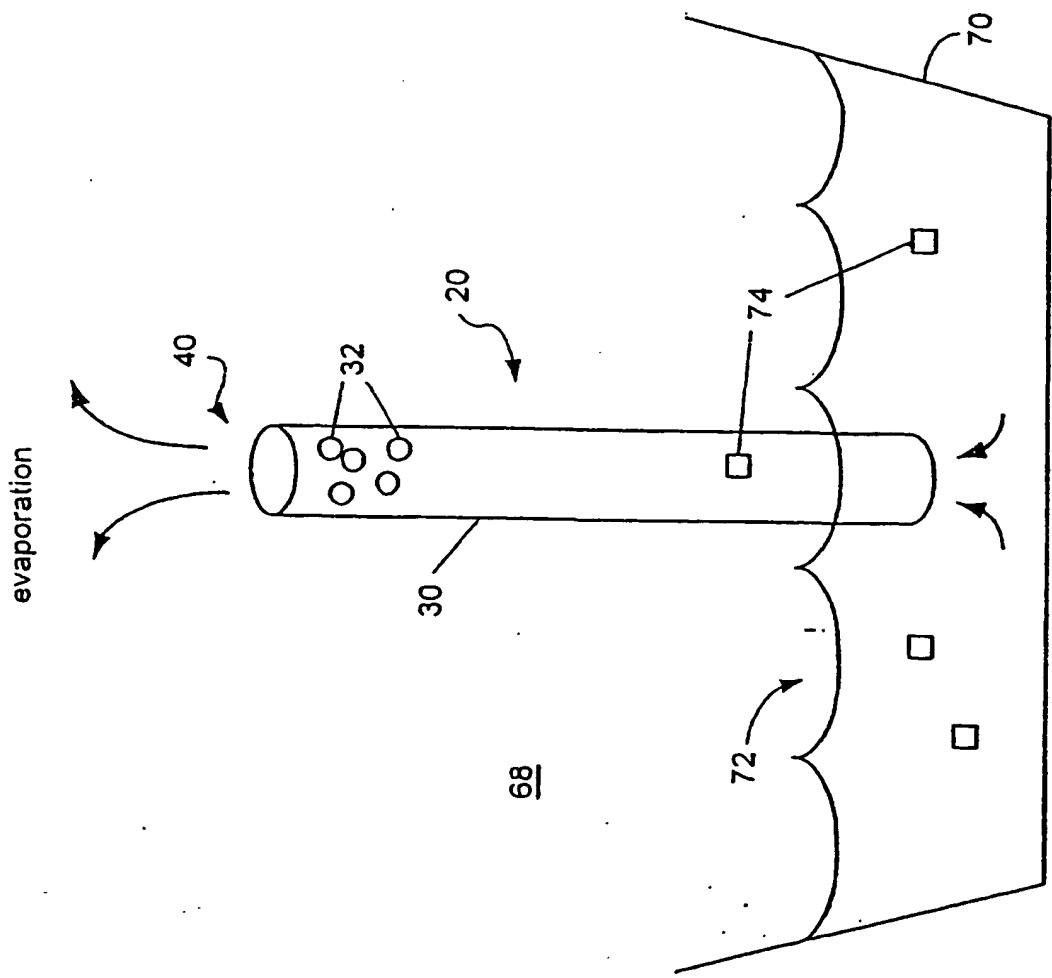


FIGURE 11

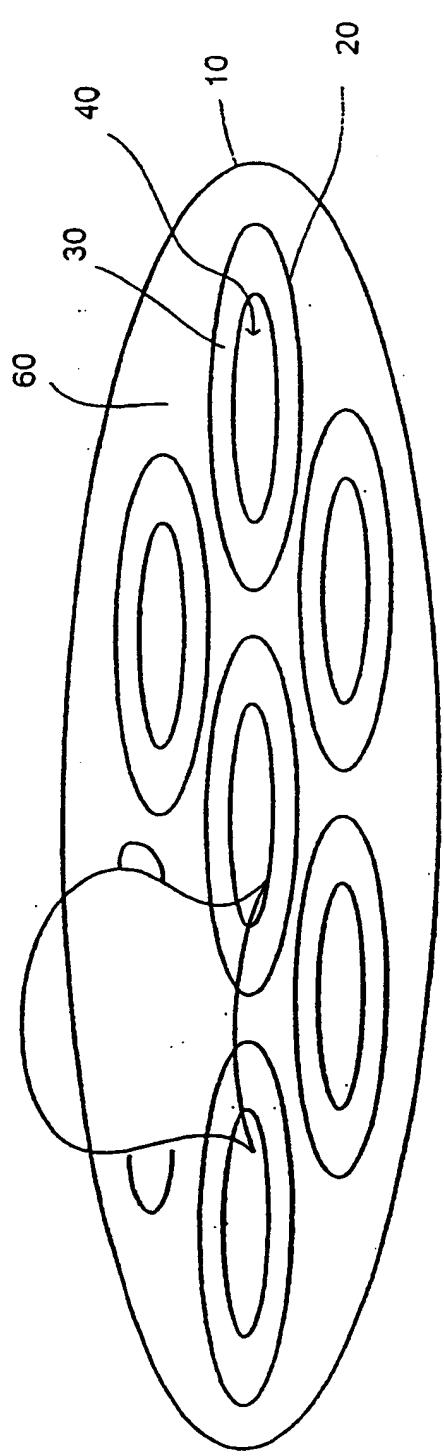


FIGURE 12A

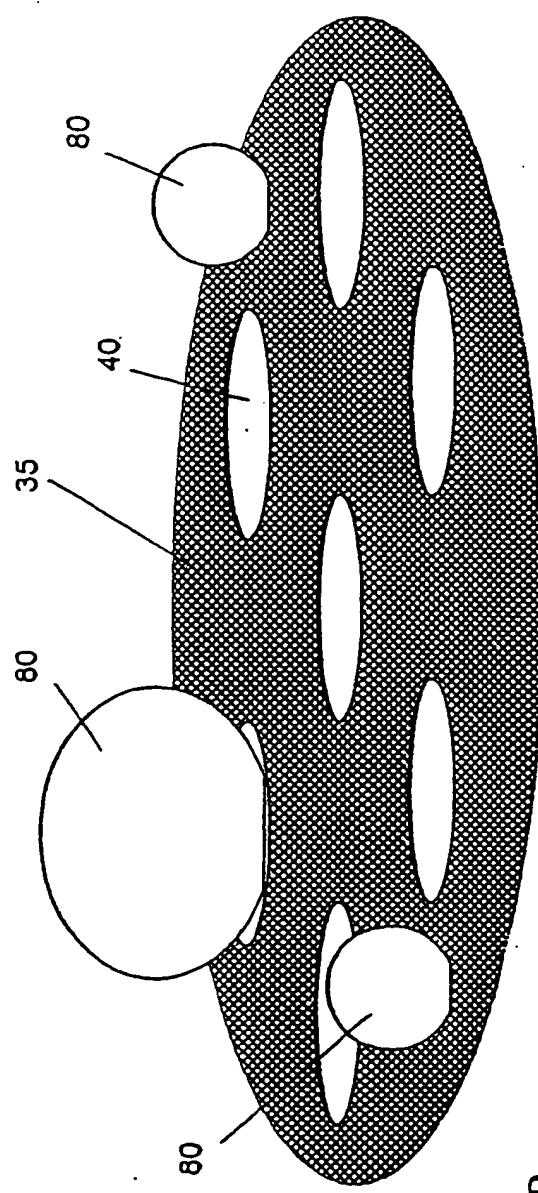
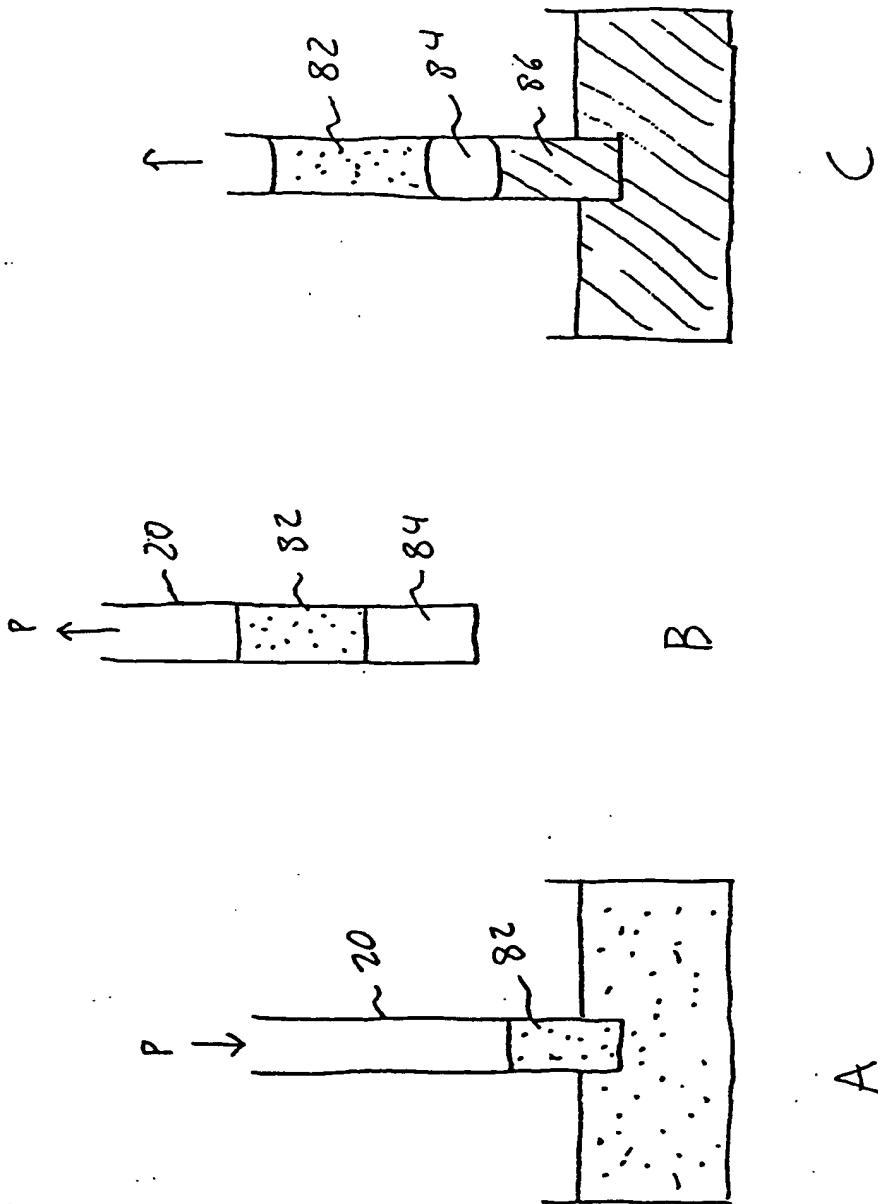


FIGURE 12B

FIGURE 13



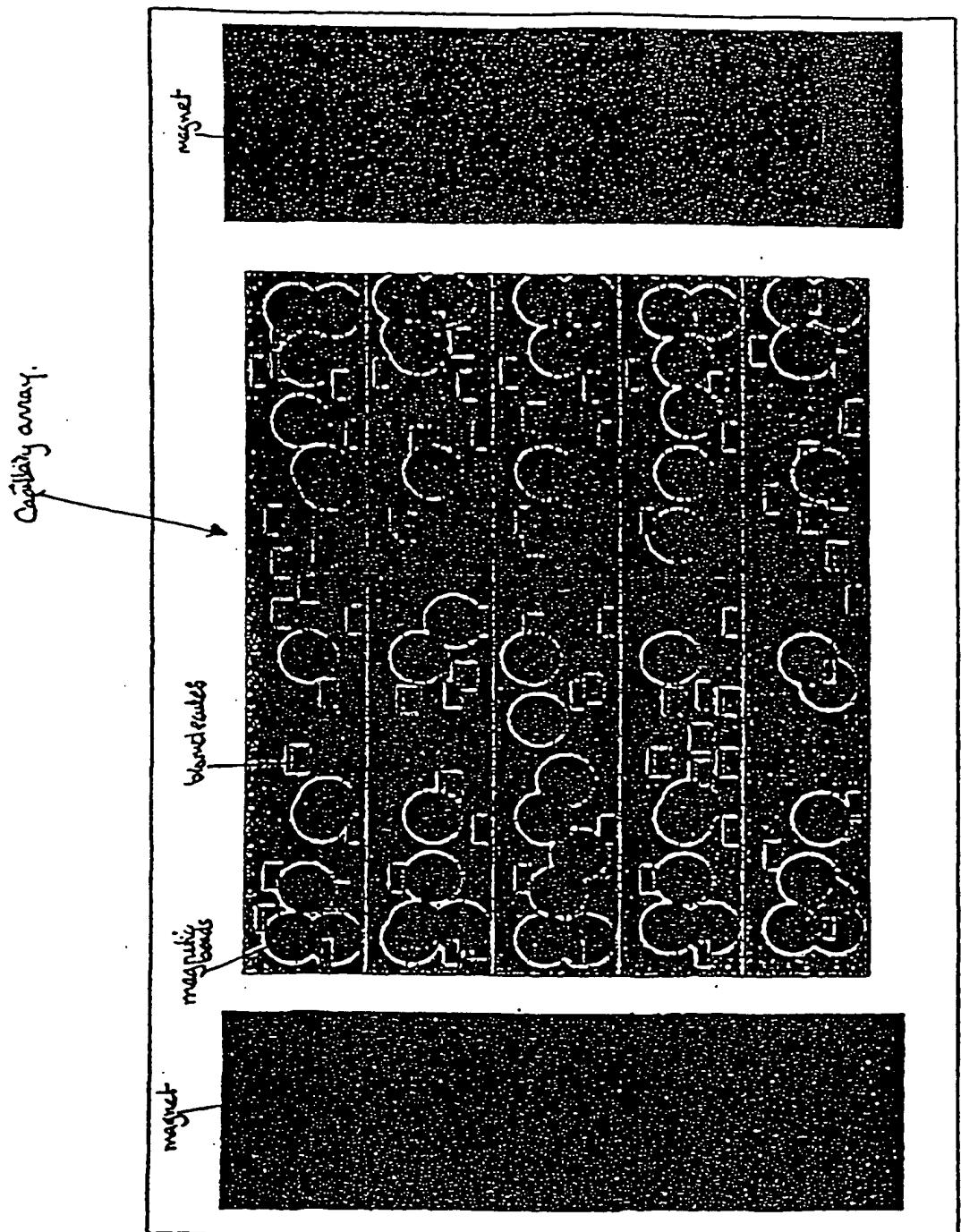


FIGURE 14A

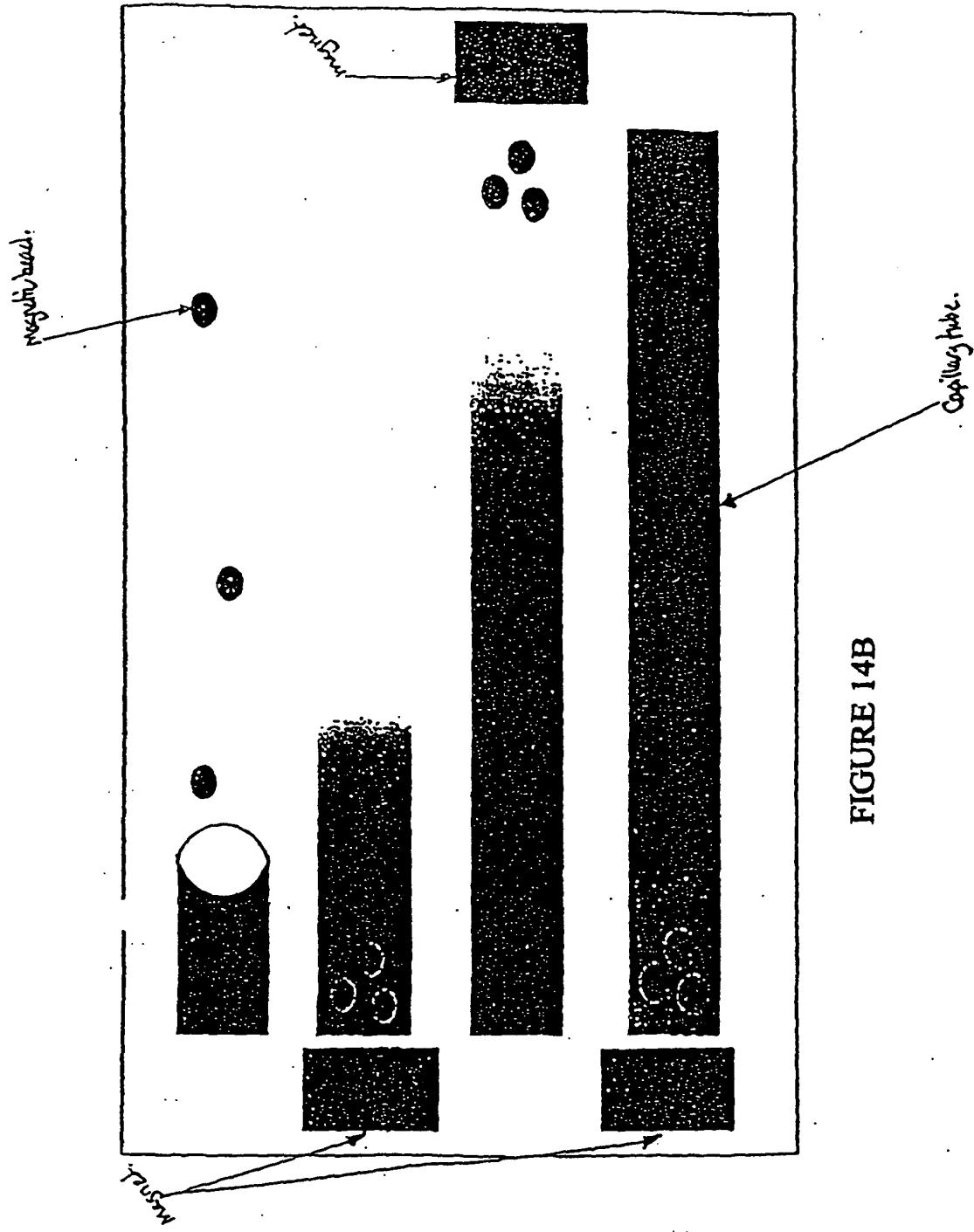
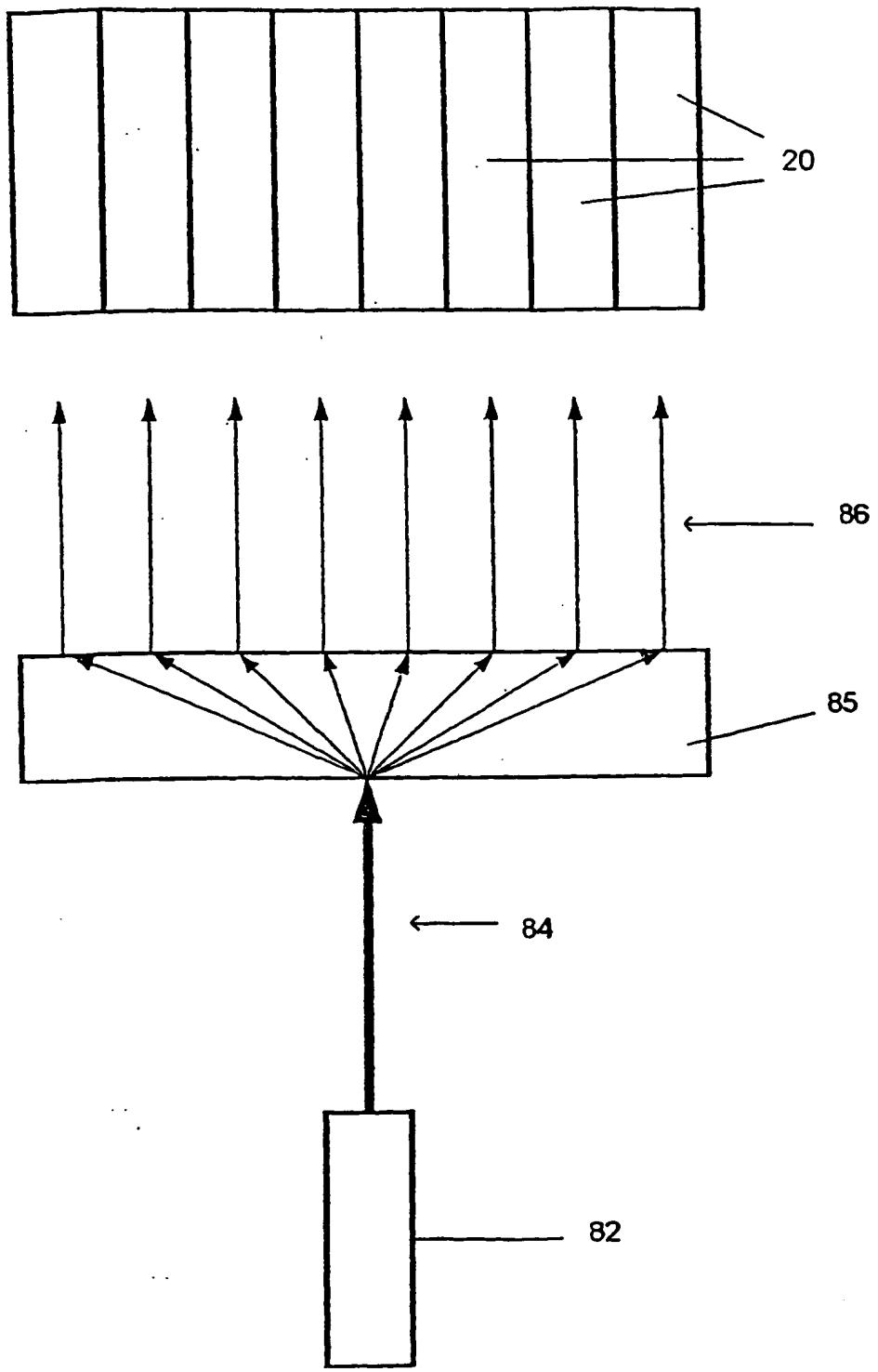
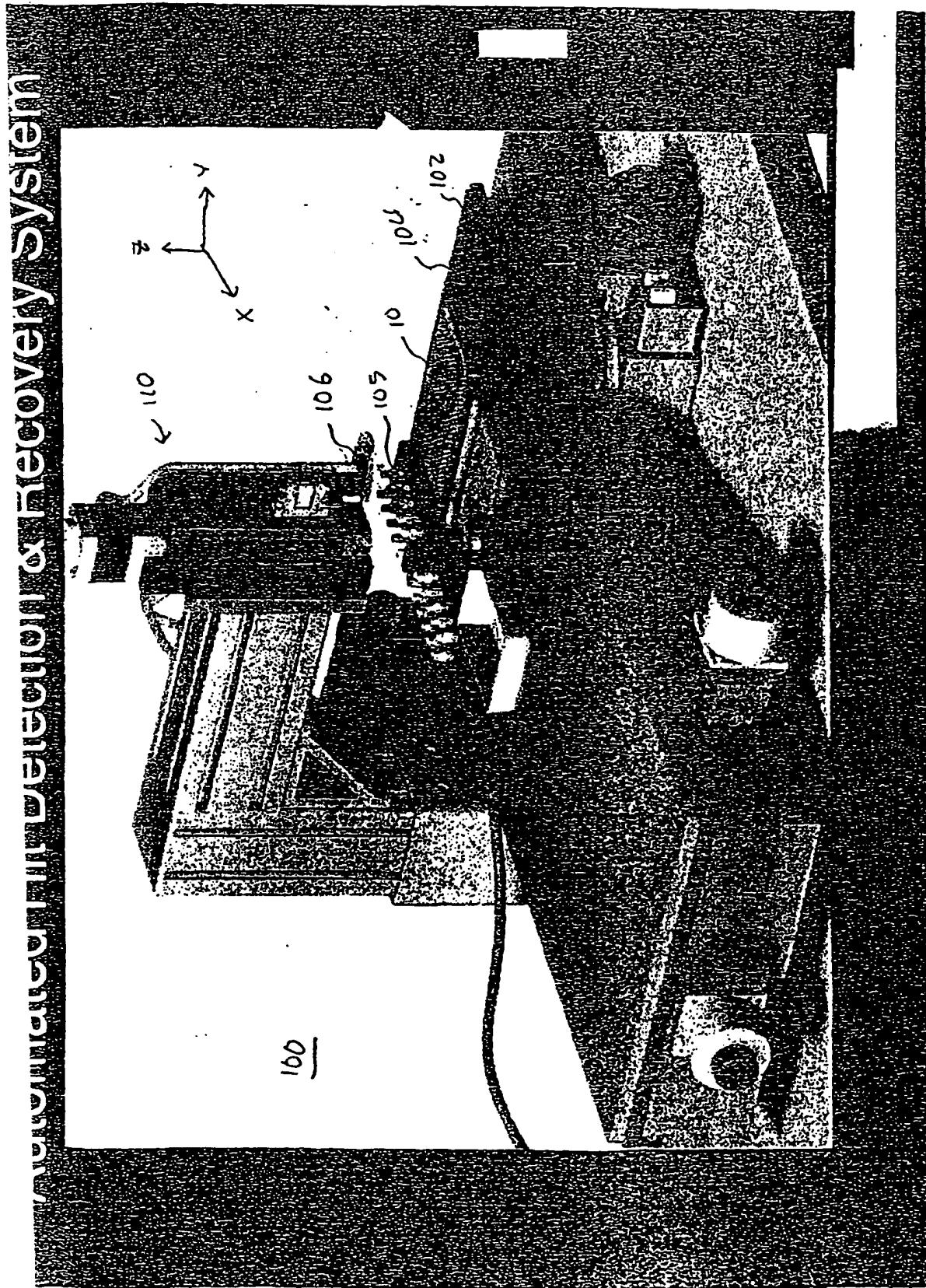


FIGURE 14B

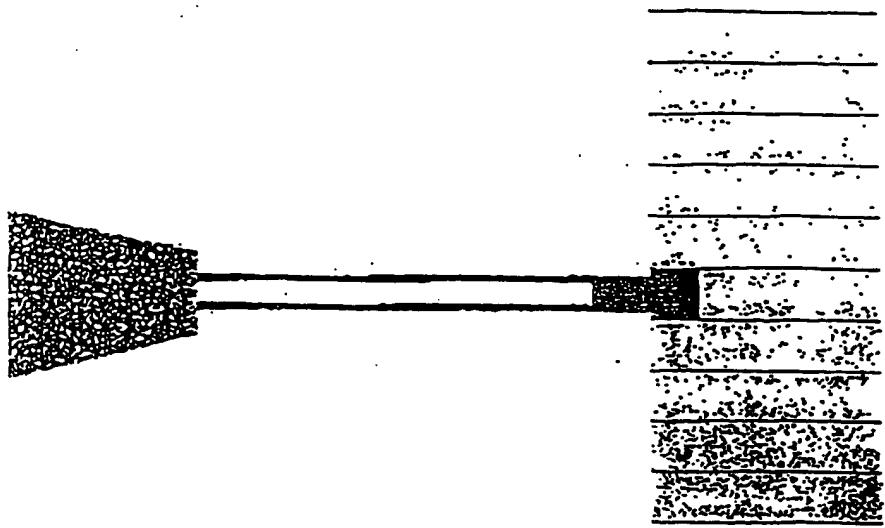


**FIGURE 15**

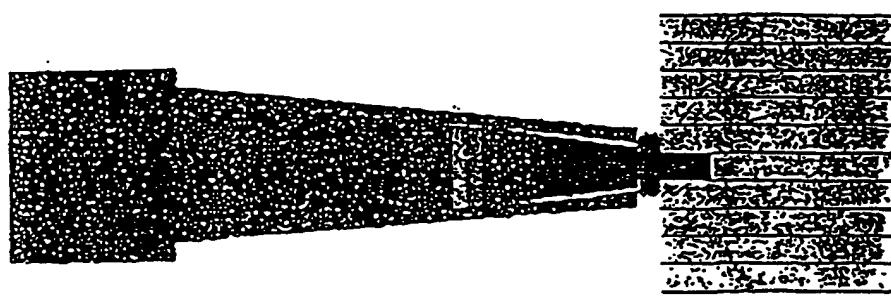
FIGURE 16



**FIGURE 17B**



**FIGURE 17A**



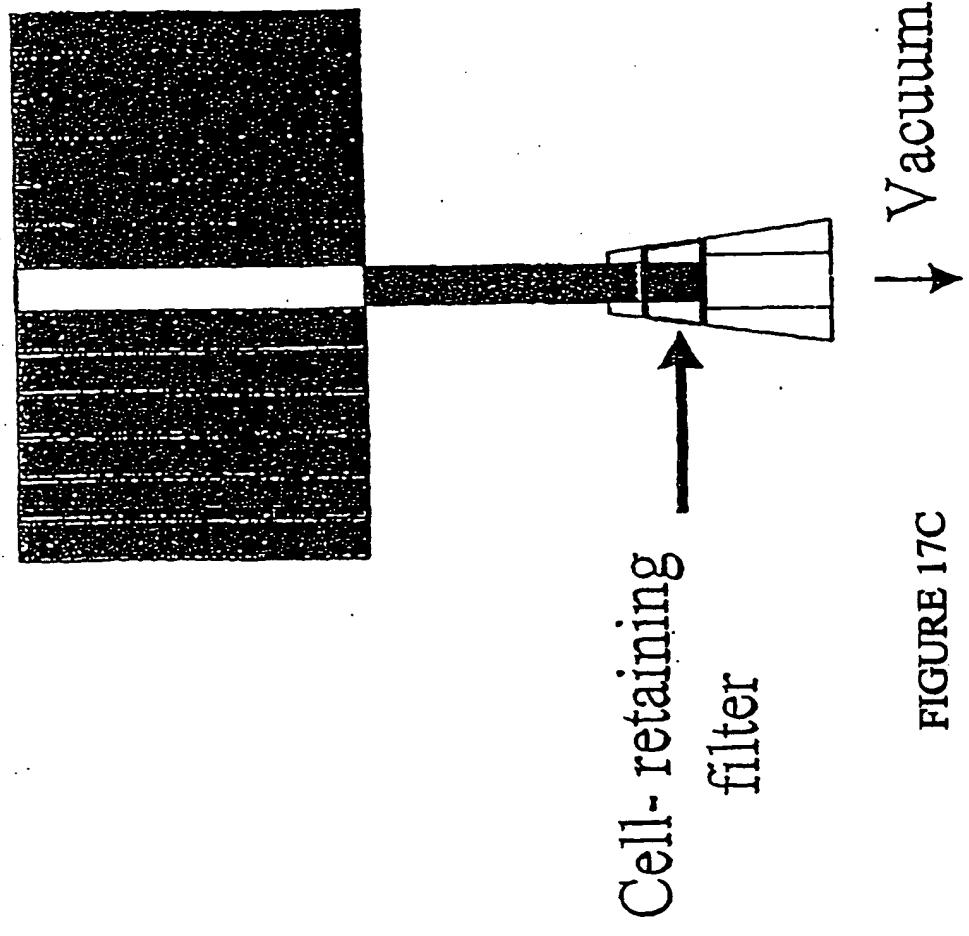
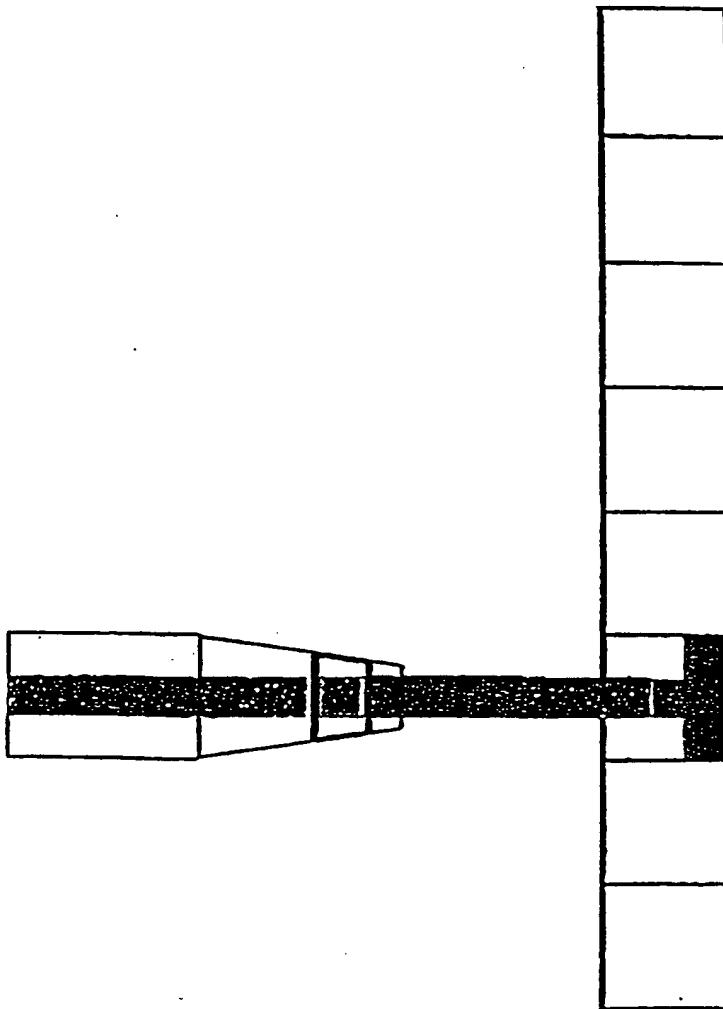


FIGURE 17C

FIGURE 17D



# HTP Enrichment of Low Copy Gene Targets

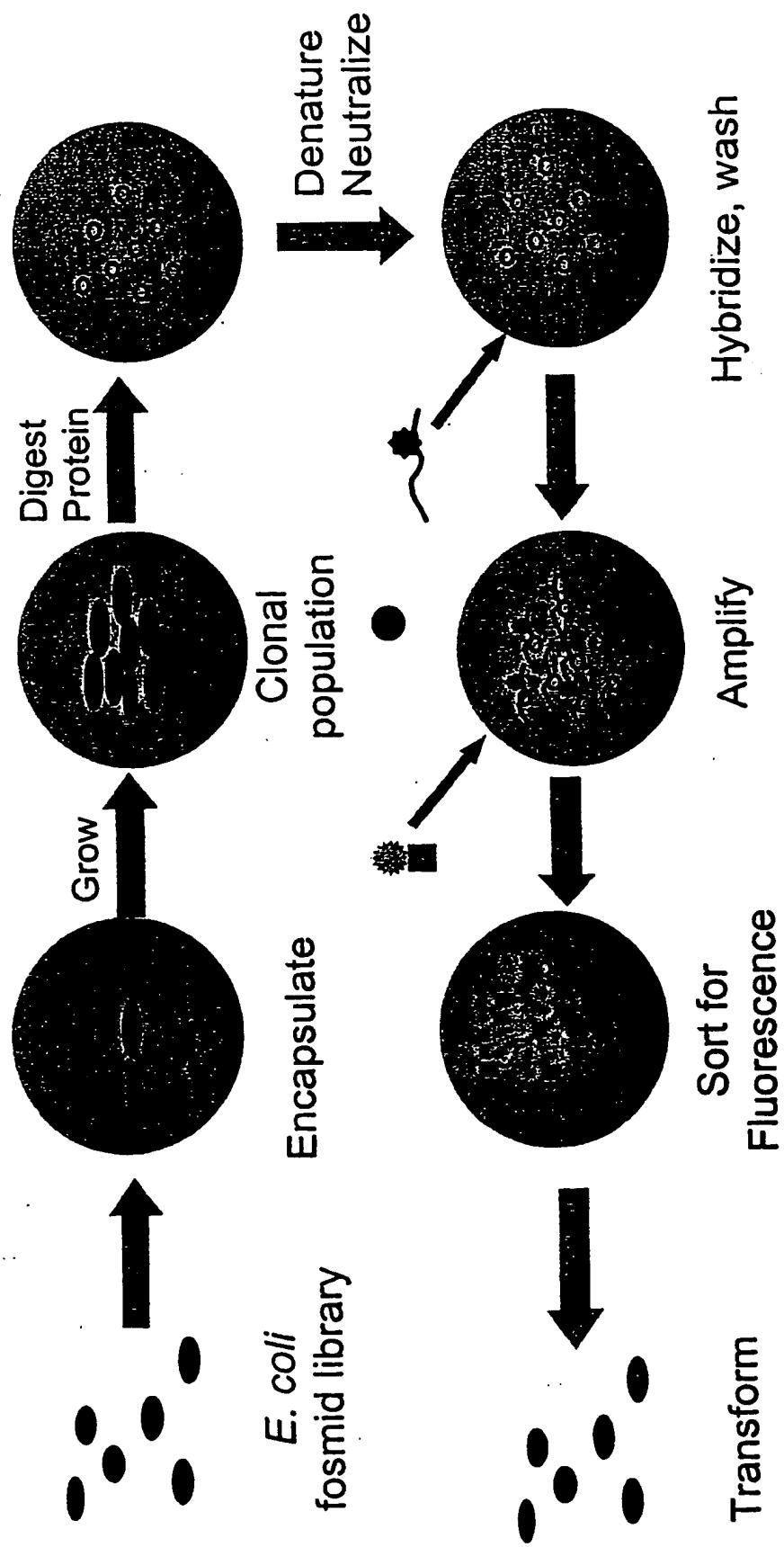
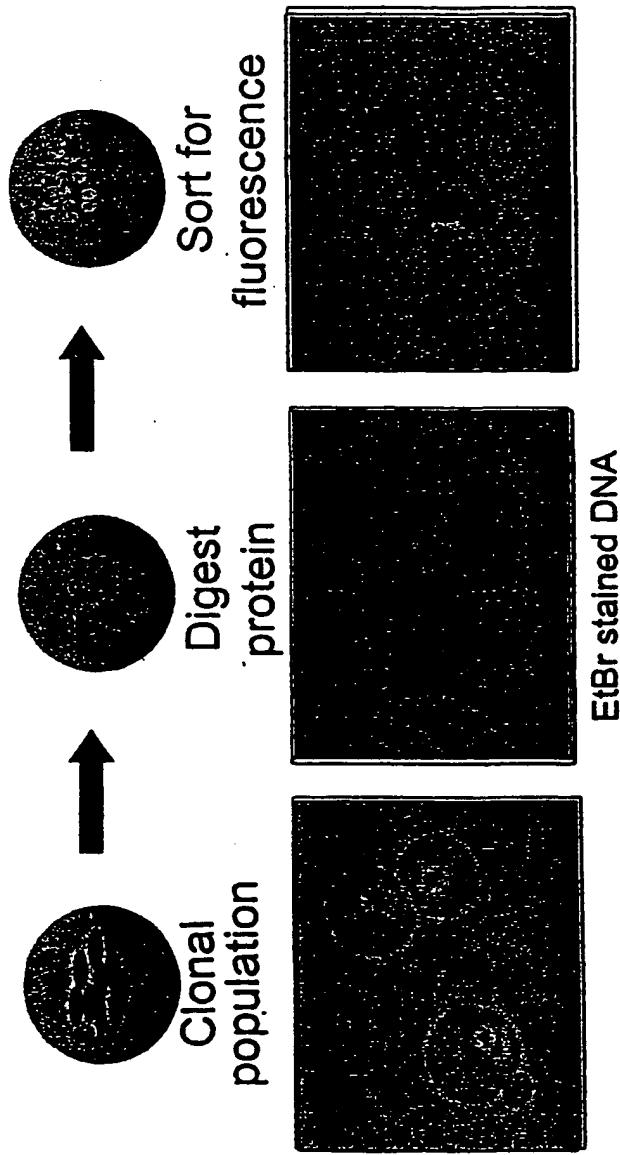


FIGURE 18

# FACSS-Biopanning



## Alignment of Environmental PKS Sequence

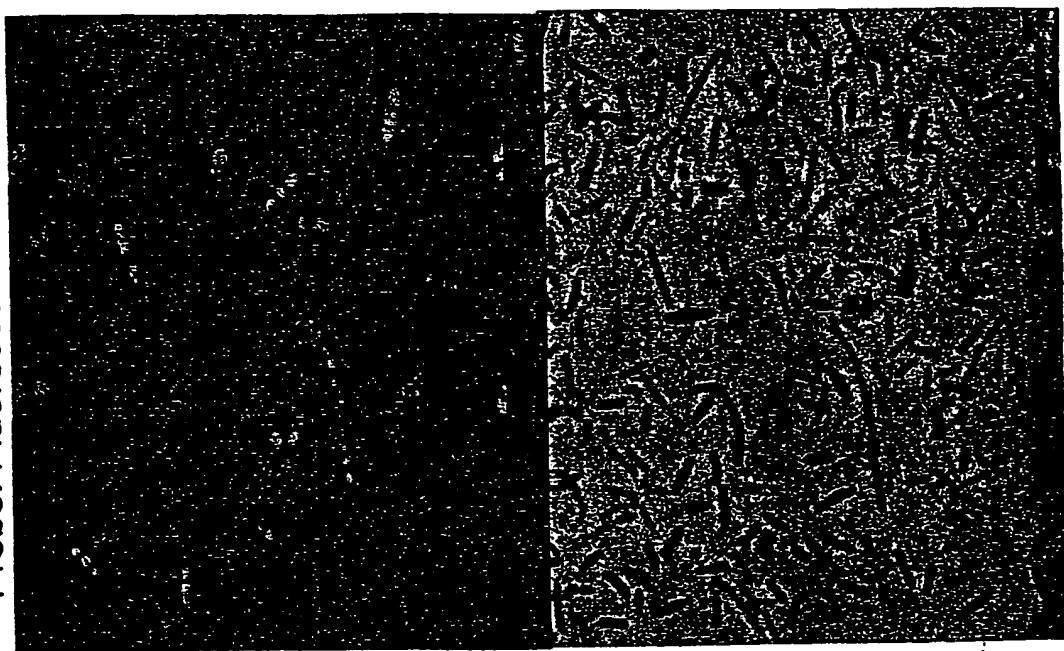
-SICGCTSGLESVCGKVNQVLTREGSADVIAGRADTPVSPIVVACFDAIATPTEPEH  
VSTGCCCTSGLDAVGYAFHTIEGRADVCTAGSDSPISPITMACFDAIKATSPRHDPEHA  
VBTGCTSGLDAVGYAHIAEGRADVCLAGADSPISPITMACFDAIKATSFRDDEHA  
VSAGCTSGLDSIGYACELIRECTYDAMVACGTBAPAPIVVACFDAIRATSDFRDTFETA  
TATACTSGVWVIGHAARIITAYGDADWVAGGAKASTPLVGGPAAARALSTKNNKFCQA  
SRPDGTERGFLTAEGAAMPVLEEEYANRRGAHITYASVGQYATRCRAYHTMSIKKODRE  
SRPFDAIFRNGPMPGEQAAVVLLEELBAAVPGAHVYCEJGQVATATFGNAYHMTSLSLE  
SRFDAPRNQSVVMDQEGAVLLEELERHARGADVCELGQVATATFGNAYHMTSLSLE  
SRPFSRBSANGFULGEQGGAIVVLEEAQAAVRGARTVYAEIUGYASRGNAYHMTGIRAGAE  
SRPMDKERDCFVLFDRAGMLVLSYEYERAKKGARTVIAELVGF3MSDAYHNTSEPERGAKJ

MAEAIIRALDEA  
MAPAIDVNLHIA  
MARAIIUTALDRA  
MAAAIIITALDEA  
AAUAAAUALEDA

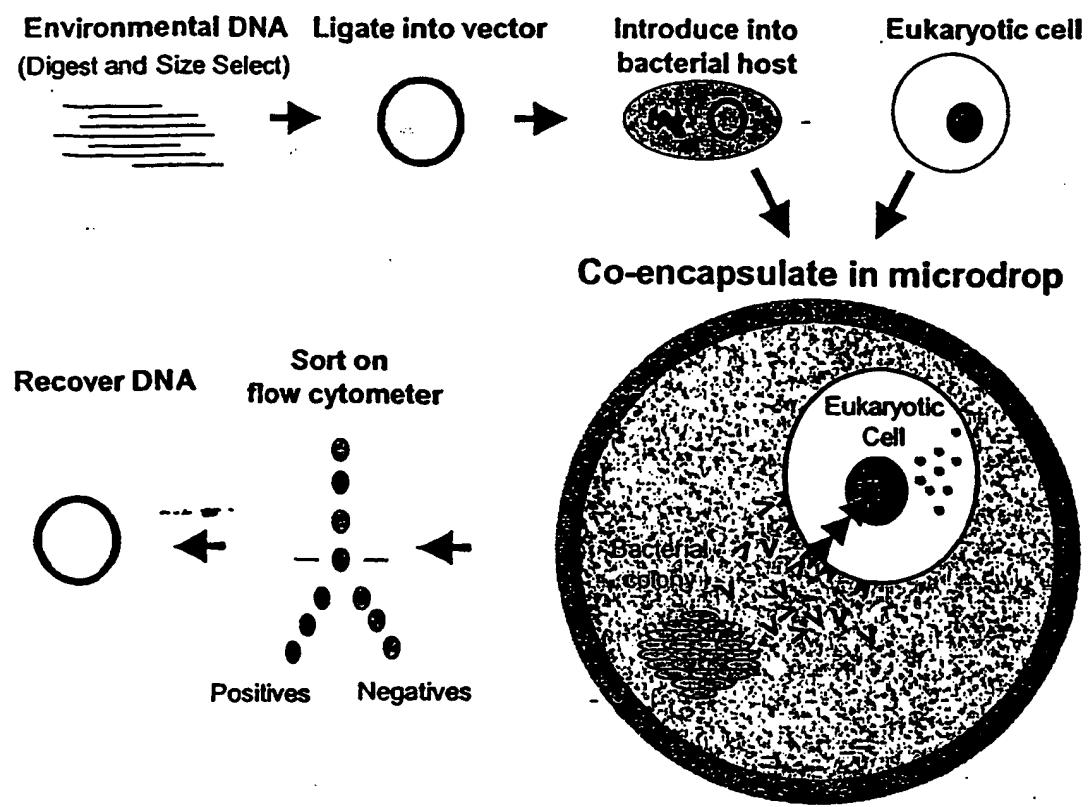
FIG. 19

## Whole Cell Hybridization

Library 557 + 95ES11 clone  
Probe: Fluorescein-95ES11



**FIG. 20**



**FIG. 21**

## Whole Cell Hybridization Protocol

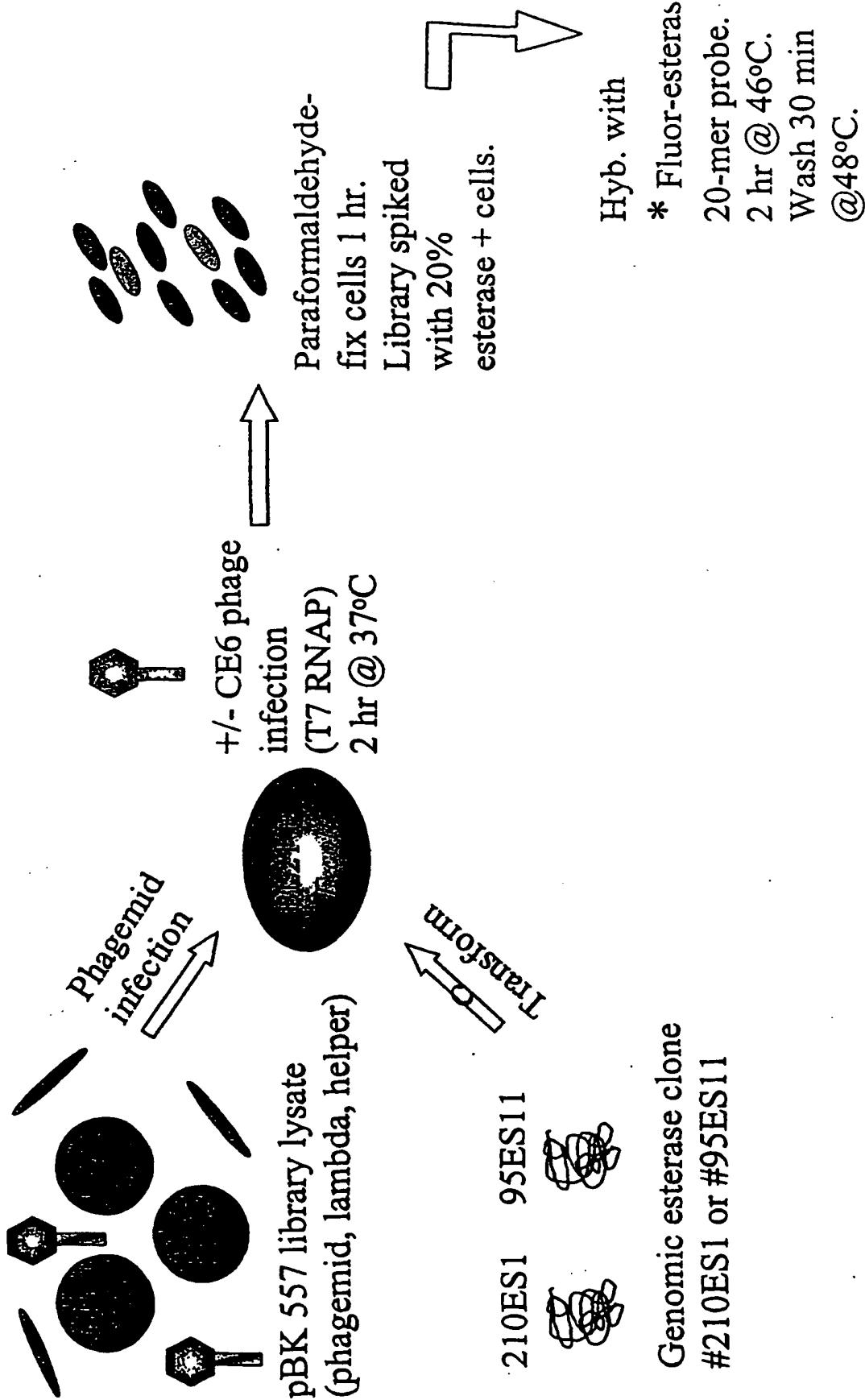


FIG. 22

## T7 RNA Polymerase Expression System

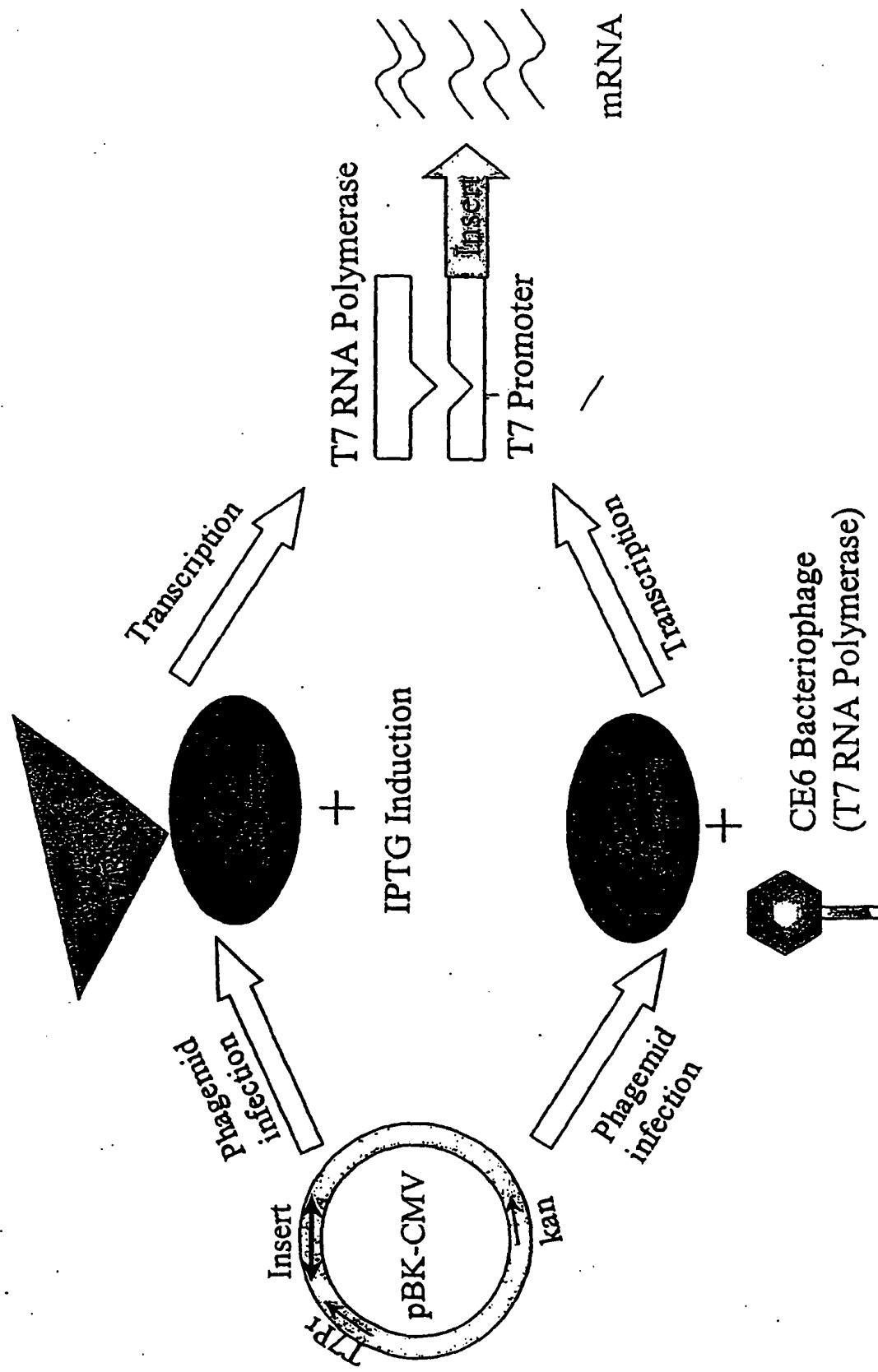
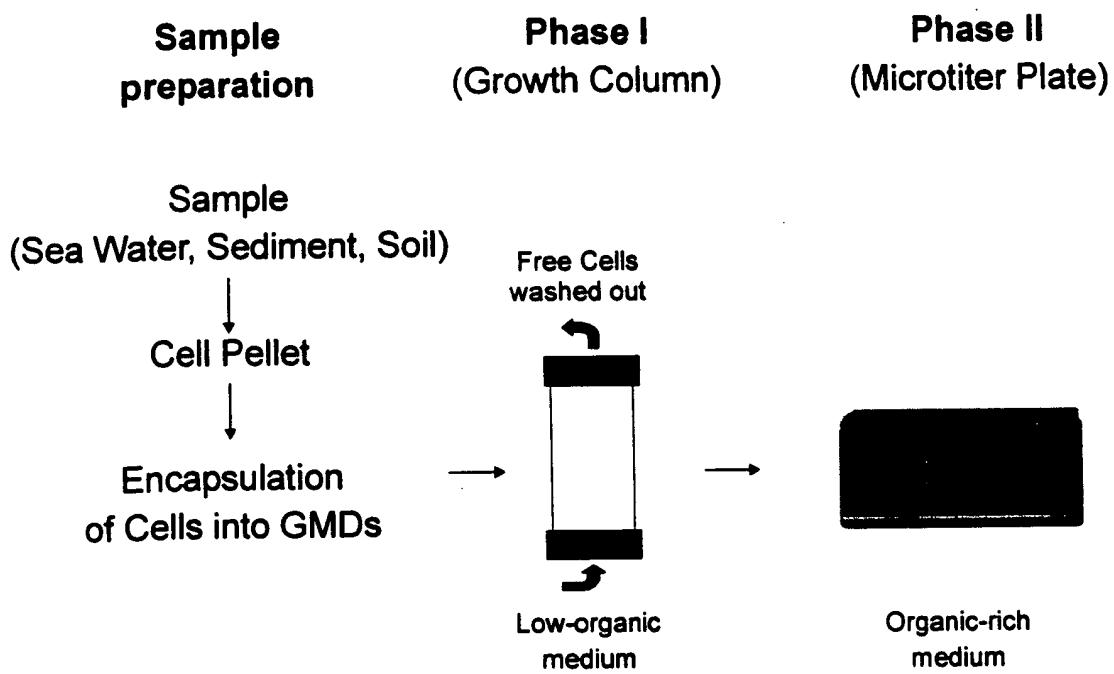


FIG. 23

*Figure 24*



*Fig. 24*

Figure 25

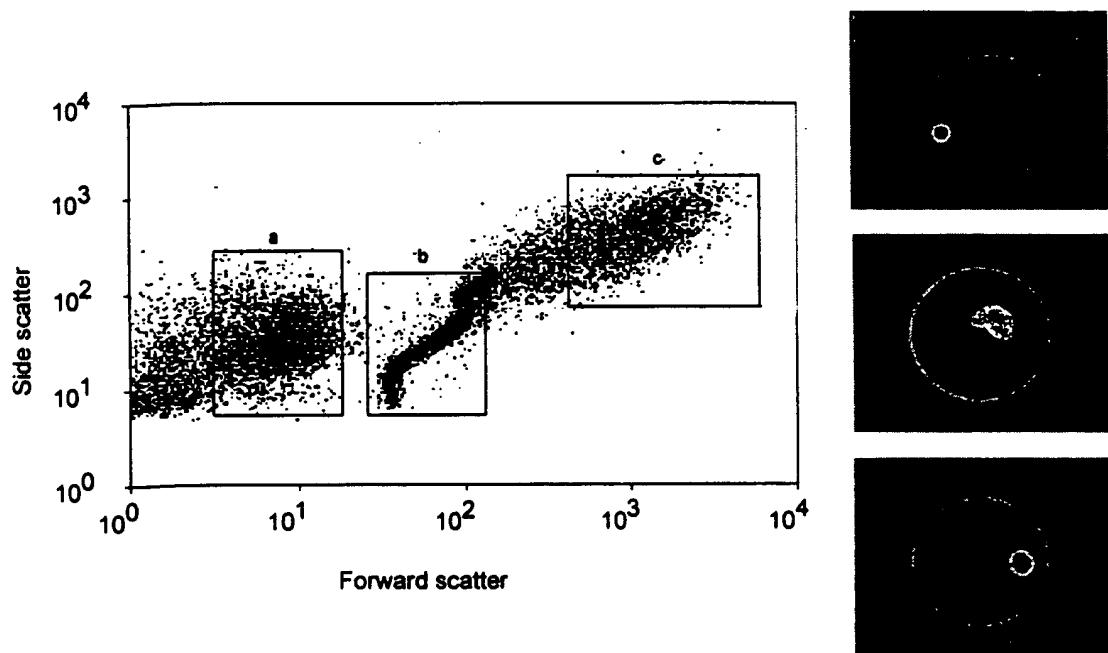


Fig. 25

Figure 26

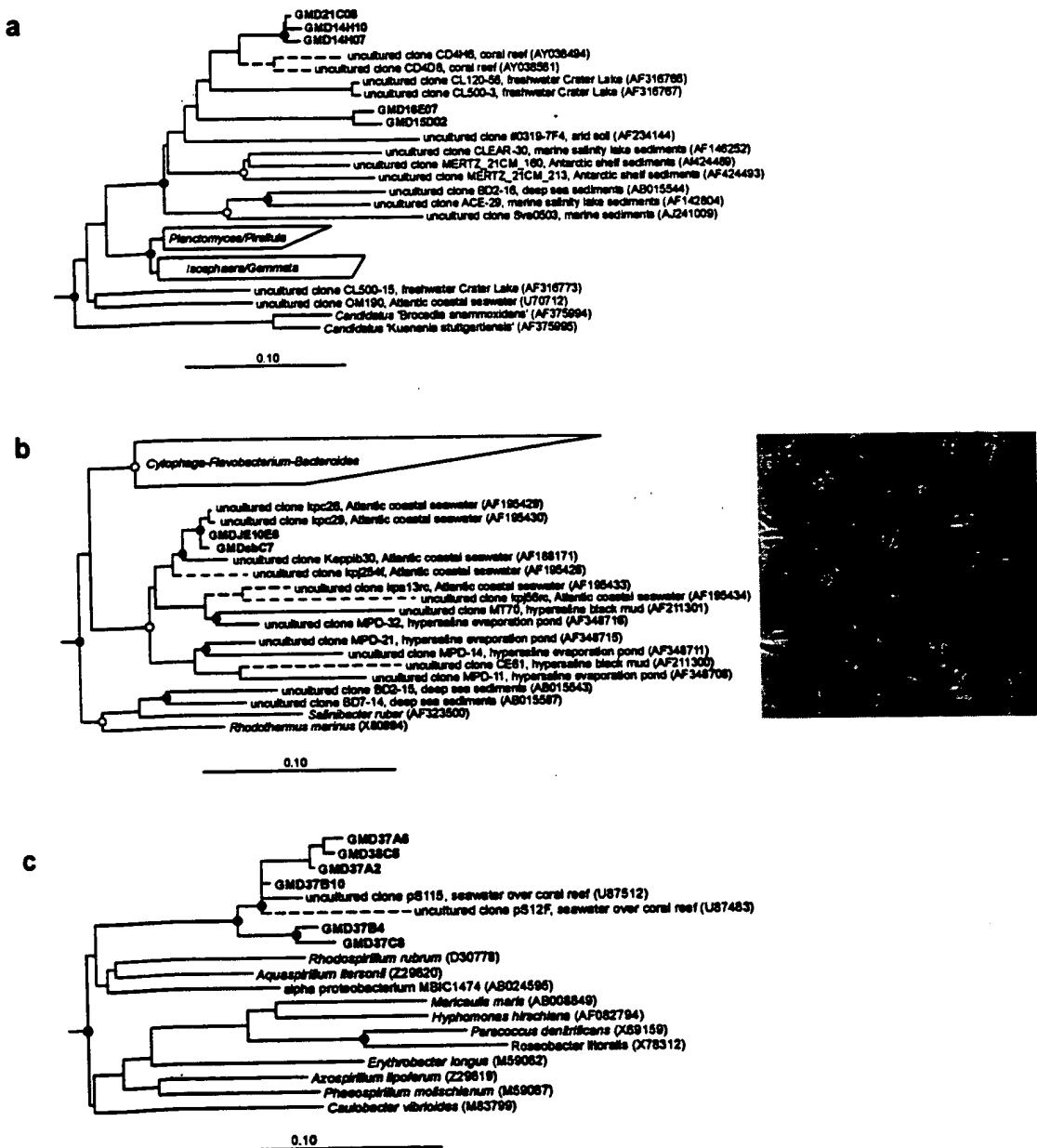


Fig. 26